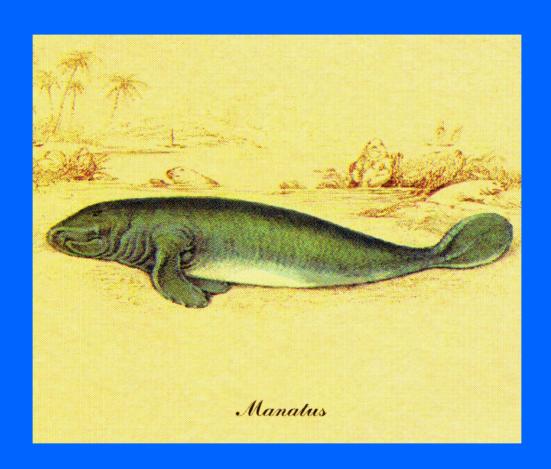
The Manatee: Concerns and Considerations





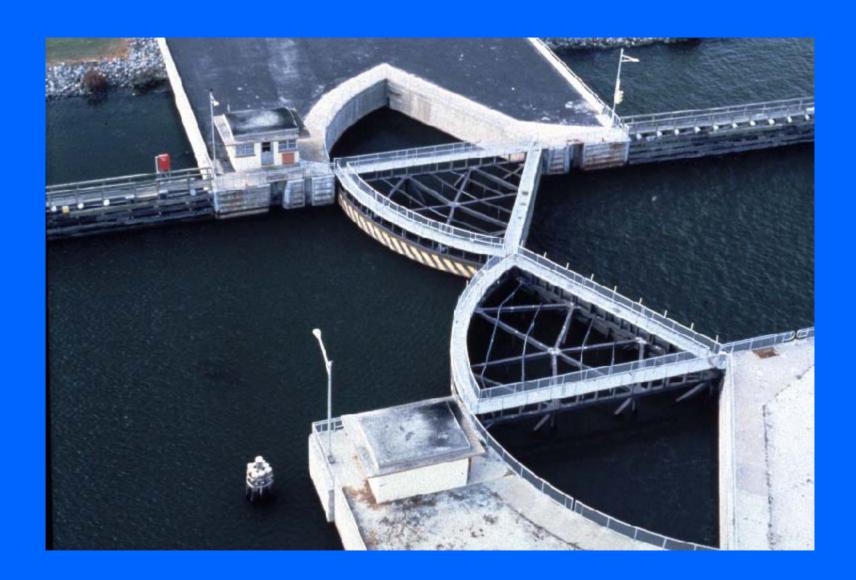






Human Activities: Lethal Takings









Human Activities: Non-lethal Takings







Development Projects and Project-related Impacts





Types of Development Projects

- Boat facilities (including single and multi-slip docks, boat ramps, shipping berths, etc.)
- Waterway deepening projects (including blasting, dredging, etc.)
- Shoreline armoring projects (including bulkheading, rip rap, etc.)
- Discharges and intakes (including fresh and warm water discharges, etc.)
- Other (including mooring dolphins, marker buoys, cable and pipeline crossings, etc.)

The Effects of Developmentrelated Activity on Manatees









Activities That Affect Manatees

- Project-related boat traffic (including tugs, barges, support boats, etc.)
- Blasting, dredging, etc.
- Entanglement (in silt screen, spill containment booms, construction debris, etc.)
- Project-related noise and other harassing factors

Minimizing Impacts

Prior to Development

During Project Implementation



After Project Implementation







Consultation Process

Authorities

- Endangered Species Act of 1973, as amended
- Marine Mammal Protection Act of 1972, as amended



